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10/582,787	06/13/2006	Masato Kaneda	Q79148	5976
23373 7590 07/29/2011 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER				
BOFF, ANCA				
ART UNIT		PAPER NUMBER		
1722				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/582,787

**Applicant(s)**

KANEDA ET AL.

**Examiner**

ANCA EOFF

**Art Unit**

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 34-53 is/are pending in the application.
- 4a) Of the above claim(s) 46 and 48-50 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34 and 41 is/are allowed.
- 6) ☒ Claim(s) 35, 37, 39, 42-44, 52 and 53 is/are rejected.
- 7) ☒ Claim(s) 36, 40, 45, 47 and 51 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 34-53 are pending. Claims 1-33 have been cancelled.
2. The foreign priority document JP 2003-418112 filed on December 16, 2003 was received and acknowledged.

***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 03, 2011 has been entered.

***Election/Restrictions***

4. Newly submitted claims 46 and 48-50 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the claims 46 and 48-50 recite limitations regarding the non-elected Species A and non-elected species C (see par. 1 of the Office Action mailed in March 18, 2008).

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 46 and 48-50 are withdrawn from

consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The examiner would also like to point out that the new claim 44 recites the limitation:

a composition of 20 to 80 percent by mass of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and 20 to 80 percent by mass of one or more aprotic polar solvent(s) when the remover consists essentially of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and one or more aprotic polar solvent(s);

This limitation of claim 44 is directed to the non-elected Species A (see par. 1 of the Office Action mailed on March 18, 2008).

Claim 44 also recite the limitation:

a composition of 20 to 30 percent by mass of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule, 1 to 20 percent by mass of one or more aprotic polar solvent(s), and 55 to 70 percent by mass of one or more other solvent(s) other than aprotic polar solvents when the remover comprises one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule, one or more aprotic polar solvent(s), and one or more other solvent(s) other than aprotic polar solvents.

This limitation is directed to the non-elected Species C (see par.1 of the Office Action mailed on March 18, 2008).

In examining claim 44, the examiner considers only the limitations regarding the elected Species B.

Therefore, claim 44 is considered as reciting: "A photosensitive composition remover as set forth in claim 42, which is a composition of 10 to 20 percent by mass of

one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and 80 to 90 percent by mass of one or more other solvent(s) other than aprotic polar solvents when the remover consists essentially of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and one or more other (s) other than aprotic polar solvents".

The new claim 45 recites the limitation:

a composition of 20 to 40 percent by mass of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and 60 to 80 percent by mass of one or more aprotic polar solvent(s) when the remover consists essentially of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and one or more aprotic polar solvent(s);

This limitation is directed to the non-elected Species A (see paragraph 1 of the Office Action mailed on March 18, 2008).

Claim 45 also recites the limitation:

a composition of 20 to 30 percent by mass of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule, 3 to 20 percent by mass of one or more aprotic polar solvent(s), and 55 to 70 percent by mass of one or more other solvent(s) other than aprotic polar solvents, the aprotic polar solvent(s) being at least one selected from the group consisting of N,N-dimethylformamide and N,N-dimethylacetamide, and the other solvent(s) other than aprotic polar solvents being at least one selected from the group consisting of propylene glycol monomethyl ether acetate, cyclohexanone, methyl 3-methoxypropionate and ethyl 3-ethoxypropionate, when the remover comprises one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule, one or more aprotic polar solvent(s), and one or more other solvent(s) other than aprotic polar solvents.

This limitation is directed to the non-elected Species C (see par. 1 of the Office Action mailed on March 18, 2008).

In examining claim 45, the examiner considers only the limitations regarding the elected Species B.

Therefore, claim 45 is considered as reciting: "A photosensitive composition remover as set forth in claim 42, which is a composition of 10 to 20 percent by mass of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and 80 to 90 percent by mass of one or more other solvent(s) other than aprotic polar solvents, wherein the remover comprises 30 to 60 percent by mass of propylene glycol monomethyl ether, when the remover consists essentially of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and one or more other solvent(s) other than aprotic polar solvents."

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraph of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 42, 43, 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Wyatt et al. (US Patent 6,162,593), as evidenced by "Aromatic 150 Fluid Product Safety Summary".

With regard to claim 42, Wyatt et al. teach a developer comprising 60% by weight of the aromatic mixture Exxon Aromatic 150 (see Comparative Example 1 in Table 1, columns 9-10).

The aromatic mixture Exxon Aromatic 150 is equivalent to Solvesso 150 (see the attached "Aromatic 150 Fluid Product Safety Summary") so it is equivalent to the "one type of aromatic hydrocarbon having 9 carbon atoms or more within the molecule, which is basically a C<sub>10</sub> alkylbenzene-based mixed solvent" of claim 42 (see page 11, lines 15-18 of the specification of the instant application).

The amount of 60% by weight is within the range of 1 to 80 percent by mass of claim 42.

The developer of Wyatt et al. has the same composition as the remover of claim 42 so it can be used as such.

The limitation of claim 42 "photosensitive composition remover used for removal of an uncured photosensitive composition" is an intended use and adds no patentable weight to the claim.

Therefore, the developer of Wyatt et al. fully anticipates the remover of claim 42.

With regard to claim 43, Exxon Aromatic 150/Solvesso 150 has a boiling point of 188°C (see page 11, lines 17-18 of the specification of the instant application), which is within the range of 150-250°C of claim 43.

Claims 52 and 53 recite limitations regarding the intended use of the remover. These limitations do not add any patentable weight to the claims.

Therefore, the developer of Wyatt et al. meets the limitations of claims 52 and 53.

7. Claims 42-44, 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Serdiuk et al. (US Patent 5,276,096).

With regard to claim 42, Serdiuk et al. teach a solvent blend comprising 20% by mass of Solvesso 100 (see column 7, lines 25-26).

Solvesso 100 is equivalent to the "one type of aromatic hydrocarbon having 9 carbon atoms within the molecule, which is C<sub>9</sub> alkylbenzene-based mixed solvent" (see page 11, lines 3-6 of the specification of the instant application).

The amount of Solvesso 100 (20% by mass) is within the range of 1 to 80 percent by mass of claim 42.

The solvent blend of Serdiuk et al. has the same composition as the remover of the instant application so it could be used as such.

The limitation of claim 42 "photosensitive composition remover used for removal of an uncured photosensitive composition" is an intended use and adds no patentable weight to the claim.

Therefore, the solvent blend of Serdiuk et al. fully anticipates the remover of claim 42.

With regard to claim 43, Solvesso 100 has a boiling point of 164°C (see page 11, lines 6-7 of the specification of the instant application), which is within the range of claim 43.

With regard to claim 44, Serdiuk et al. teach a solvent blend of 80:20 primary amyl acetate and Solvesso 100 (column 7, lines 25-26).

The primary amyl acetate of Serdiuk et al. is a carboxylic acid ester, equivalent to "a solvent other than aprotic polar solvents" of claim 44 (see examples of solvents other than aprotic polar solvents on page 16, lines 11-15 of the specification of the instant application).

The blend of 80:20 primary amyl acetate and Solvesso 100 of Serdiuk et al. meets the limitation of claim 44 for a composition of 20 percent by mass of an aromatic hydrocarbon having 9 carbon atoms and 80 percent by mass of a solvent other than aprotic polar solvents, when the composition consists essentially of one aromatic hydrocarbon with 9 carbon atoms and one other solvent other than aprotic polar solvent.

Therefore, the solvent blend of Serdiuk et al. fully anticipates the remover of claim 44 the instant application.

Claims 52 and 53 recite limitations regarding the intended use of the remover. These limitations do not add any patentable weight to the claims.

Therefore, the solvent blend of Serdiuk et al. meets the limitations of claims 52 and 53.

8. Claims 42-44, 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Takagi et al. (US Patent 5,521,054).

With regard to claim 42, Takagi et al. disclose a developing solution comprising 20% by mass of Swazol 1500 (column 7, lines 61-62).

Swazol 1500 is equivalent to the "at least one type of aromatic hydrocarbon having 9 carbon atoms or more within the molecule, which is an C<sub>10</sub> alkylbenzene-

based mixed solvent" of claim 42 (see page 11, lines 16-20 of the specification of the instant application).

The amount of Swazol 1500 is within the range of 1 to 80 percent by mass of claim 42.

The limitation of claim 42 "a photosensitive composition remover used for removal of an uncured photosensitive composition" is an intended use and adds no patentable weight to the claim.

Therefore, the developing solution of Takagi et al. fully anticipates the remover of claim 42 of the instant application.

With regard to claim 43, Swazol 1500 has a boiling point of 180.5°C (see page 11, line 21 of the specification of the instant application), which is within the range of claim 43.

With regard to claim 44, Takagi et al. disclose a developing solution consisting of:

- 20% by mass of Swazol 1500;
- 80% by mass of a mixture of benzyl alcohol and isobutyl isobutyrate (column 7, lines 61-62).

Benzyl alcohol and isobutyl isobutyrate are equivalent to "other solvents other than aprotic polar solvents" of claim 44 (see page 16, lines 11-15 in the specification of the instant application, wherein carboxylic acid esters and alcohols are defined as "solvents other than aprotic polar solvents").

The developing solution of Takagi et al. meets the limitations of claim 44 for a composition of 20 percent by mass of one aromatic hydrocarbon with 10 carbon atoms

in the molecule and 80 percent by mass of two other solvents other than aprotic polar solvents, wherein the composition consists essentially of one aromatic hydrocarbon having 10 carbon atoms within the molecule and two other solvents other than aprotic polar solvents".

Claims 52 and 53 recite limitations regarding the intended use of the remover. These limitations do not add any patentable weight to the claims.

Therefore, the developing solution of Takagi et al. meets the limitations of claims 52 and 53.

9. Claims 35, 37-39, 42-44, 52 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Epple et al. (US Patent 5,770,667).

With regard to claim 35, Epple et al. teach a solvent mixture of methoxypropyl acetate: butyl acetate : Solvesso 100 is a ratio of 1:3:1. (column 15, lines 43 and 54).

This solvent mixture is equivalent to a solvent consisting essentially of:

– 20 percent by mass of Solvesso 100, which is equivalent to "an aromatic hydrocarbon having 9 carbon atoms or more within the molecule, wherein the aromatic hydrocarbon is basically a C<sub>9</sub> alkylbenzene-based mixed solvent" (see page 11, lines 3-6 of the specification of the instant application), and

– 80 percent by mass of a mixture of methoxypropyl acetate and butyl acetate, which are equivalent to "two other solvents other than aprotic polar solvents".

The methoxypropyl acetate is an alkoxycarboxylic ester.

The butyl acetate of Epple et al. meets the limitations of claim 35 for "a carboxylic acid ester excluding ethyl acetate and amyl acetate".

The solvent mixture of Eppe et al. has the same composition as the remover of claim 35 so it could be used as such.

The limitations of claim 35 "photosensitive composition remover used for removal of an uncured photosensitive composition" and "the photosensitive composition remover is used for removal of a photosensitive composition containing a pigment" are regarding an intended use and add no patentable weight to the claim.

Therefore, the solvent mixture of Eppe et al. fully anticipates the remover of claim 35.

Claim 37 recites only limitations regarding the intended use. These limitations do not add any patentable weight to the claim.

Therefore, the solvent mixture of Eppe et al. meets the limitations of claim 37.

With regard to claim 38, Solvesso 100, methoxypropyl acetate and butyl acetate are solvents.

With regard to claim 39, the methoxypropyl acetate of Eppe et al. is identical to the propylene glycol monomethyl ether acetate of claim 39.

Therefore, the mixture of methoxypropyl acetate and butyl acetate of Eppe et al. meet the limitation for two solvents which are propylene glycol monomethyl ether acetate and butyl acetate.

With regard to claim 42, Eppe et al. teach a solvent mixture comprising 20% by mass of Solvesso 100 (column 15, lines 43 and 54), which is equivalent to an "one type of aromatic hydrocarbon having 9 carbon atoms or more within the molecule, wherein

the aromatic hydrocarbon is basically a C<sub>9</sub> alkylbenzene-based mixed solvent" (see page 11, lines 3-6 of the specification of the instant application).

The solvent mixture of Epple et al. has the same composition as the remover of claim 42 so it could be used as such.

The limitation of claim 42 "photosensitive composition remover used for removal of an uncured photosensitive composition" is an intended use and adds no patentable weight to the claim.

Therefore, the solvent mixture of Epple et al. fully anticipates the remover of claim 42.

With regard to claim 43, Solvesso 100 has a boiling point of 164°C (see page 11, line 6 of the specification of the instant application), which is within the range of claim 43.

With regard to claim 44, Epple et al. teach a solvent mixture of methoxypropyl acetate: butyl acetate : Solvesso 100 is a ratio of 1:3:1. (column 15, lines 43 and 54).

This solvent mixture is equivalent to a solvent consisting essentially of:

- 20 percent by mass of Solvesso 100, which is equivalent to one aromatic hydrocarbon having 9 carbon atoms or more within the molecule, wherein the aromatic hydrocarbon is basically a C<sub>9</sub> alkylbenzene-based mixed solvent (see page 11, lines 3-6 of the specification of the instant application), and

- 80 percent by mass of a mixture of methoxypropyl acetate and butyl acetate, which are equivalent to "two other solvents other than aprotic polar solvents" (see page

16, lines 11-15 of the specification of the instant application for the definition of solvents other than aprotic polar solvents).

Claims 52 and 53 recite limitations regarding the intended use of the remover. These limitations do not add any patentable weight to the claims.

Therefore, the solvent mixture of Apple et al. meets the limitations of claims 52 and 53.

***Allowable Subject Matter***

10. Claims 34 and 41 are allowed.
11. Claims 36, 40, 45, 47 and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The applicant is reminded that claim 45 was considered as reciting: "A photosensitive composition remover as set forth in claim 42, which is a composition of 10 to 20 percent by mass of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and 80 to 90 percent by mass of one or more other solvent(s) other than aprotic polar solvents, wherein the remover comprises 30 to 60 percent by mass of propylene glycol monomethyl ether, when the remover consists essentially of one or more aromatic hydrocarbon(s) having 9 carbon atoms or more within the molecule and one or more other solvent(s) other than aprotic polar solvents."

The limitations of claim 45 directed to the non-elected Species A and C were not considered.

The prior art does not teach the remover composition of claims 34, 36, 40, 41, 45, 47 and 51 of the instant application.

### ***Response to Arguments***

12. Applicant's arguments with respect to amended claim 34 and the new claims 35-53, see pages of the Remarks filed on June 13, 2011 have been considered but are moot in view of the new grounds of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANCA EOFF whose telephone number is (571)272-9810. The examiner can normally be reached on Monday-Thursday, 6:30 AM-4:00 PM, EST and Friday, 6:30-10:30 AM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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/Anca Eoff/

Primary Examiner, Art Unit 1722